

Patent
Serial No. 10/509,233
Reply to Final Office Action of June 30, 2006

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Final Office Action dated June 30, 2006. Reconsideration and allowance of the application in view of the remarks to follow are respectfully requested.

Claims 1-22 are pending in the Application. Claims 1, 15, 18, 21 and 22 are independent claims.

The Applicants would like to thank the Examiner for the indication that claims 21 and 22 are allowed.

In the Office Action, Claims 1-20 are rejected under 35 U.S.C. §112, first paragraph for allegedly failing to comply with the written description requirement. The Office Action asserts that, "[t]he specification calls for the pits wherein the data area is surrounded by a non-data area, which is the opposite of what is now claimed in claims 1-20." The Office Action further states that "figures 4, 6A, 6B, and page 9, lines 20-26" require that "the data is the land/pit in the middle of the recording area LE/H. Hence the new limitation in the claims represents new matter."

These assertion are respectfully refuted and particularly, this rejection is respectfully traversed.

Patent
Serial No. 10/509,233
Reply to Final Office Action of June 30, 2006

The Applicants maintain that the claims contain subject matter which is well described and supported in the specification, as submitted, to convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

It in fact is respectfully submitted the specification as submitted provides a clear written description of two embodiments wherein one describes an embodiment wherein a data area is surrounded by a non-data area and another wherein a non-data area is surrounded by a data area.

The Applicants respectfully direct the Examiner's attention to page 4, lines 20-24 of the specification wherein it is disclosed that (emphasis added) "[a]ccording to the invention, the folding problem can be prevented or alleviated during the writing or mastering process by realizing marks, e.g. pit effects, as incomplete marks, which do not form large mirror surfaces when combined in clusters of adjacent pits. The incomplete marks may be obtained by modulating the shape of pit effects in any manner suitable to reduce the reflection surface and/or to increase diffraction."

Patent
Serial No. 10/509,233
Reply to Final Office Action of June 30, 2006

Further, the specification makes clear that in one embodiment "an incomplete pit effect ... [is formed] wherein a cylindrical pillar P is formed substantially in the central portion of the respective pit effect. The top of the pillar P forms a land area left over." (See, FIG. 4 and the accompanying description contained on page 6, lines 25-27.) Accordingly, in contrast with what is asserted in the Office Action, FIG. 4 illustrates an embodiment wherein an incomplete pit effect, namely data, is formed surrounding land data, namely non-data, as required by Claims 1-20. In this embodiment, the specification makes clear that "[t]he incomplete pit effect [e.g., data] with the pillar P [e.g., non-data] in the center prevents folding in case of too many adjacent pit effects [e.g., data] ... The pillars P lead to a diffraction of the incident radiation, e.g. laser light, mostly outside the pupil or lens of the detection system at the pick-up unit. Thereby, the intensity of the central aperture signal is reduced when the radiation beam is incident on large pit [data] areas." (See, page 6, lines 30-31.) The specification further describes that "to write the pit [data] effect with the pillar [non-data] P substantially in the center" the mastering of such an incomplete pit data effect may be performed. (See, page 7, lines 8-11.)

Patent
Serial No. 10/509,233
Reply to Final Office Action of June 30, 2006

As made explicitly clear, "an incomplete pit effect according to an example of the write scheme of the present invention ... [as shown in FIG. 6A may show] the dark circular portion of the incomplete pit [data] effect indicates the pillar [non-data] P." (See, FIG. 6A and the accompanying description contained on page 7, lines 27-30.)

While it is true that the specification describes an embodiment wherein "the dark circular portion may as well represent a small circular [data] pit hole arranged in a substantially central portion of the channel bit area allocated to the pit effect. Thus, the incomplete pit [data] effect is formed by a remaining edge [non-data] portion at land level and a central pit [data] hole with a lower bottom level", the specification makes clear that this is an "alternative" embodiment than embodiments previously described. (See, page 7, line 31 through page 8, line 3.)

As should be clear from the above discussion, the element of "wherein incomplete mark areas are formed by surrounding a non-data area with a data area" as required by each of the pending claims is not new matter as this embodiment is well described in the specification as originally submitted. In light of the above

Patent
Serial No. 10/509,233
Reply to Final Office Action of June 30, 2006

discussion and the specification as originally submitted, the Applicants respectfully request that the above rejections of claims 1-20 under 35 U.S.C. §112, first paragraph allegedly for introducing new matter be withdrawn.

In the Office Action, Claims 1-20 are rejected under 35 U.S.C. §112, first paragraph for allegedly failing to comply with the enablement requirement. The Office Action asserts that, "[t]he claim(s) contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which is it most nearly connected, to make and/or use the invention. The specification calls for the pits wherein the data area is surrounded by a non-data area, which is the opposite of what is now claimed in claims 1-20." The Office Action further states that "figures 4, 6A, 6B, and page 9, lines 20-26" require that "the data is the land/pit in the middle of the recording area LE/H. Hence the new limitation in the claims is not enabled."

These assertions are respectfully refuted and particularly, this rejection is respectfully traversed.

As a first matter, as should be clear from the above discussion, the embodiment as required by Claims 1-20 is well

Patent
Serial No. 10/509,233
Reply to Final Office Action of June 30, 2006

described and enabled and as such, may be implemented by a person skilled in the art without undue experimentation and thereby, enables a person skilled in the art to make and/or use the invention.

A person skilled in this art would readily appreciate that any of numerous systems may be utilized for making the present data, two embodiments of which are described in the specification. However, as should be clear, the claims should not be understood to be limited to any such described embodiments unless the claims explicitly require such an embodiment. Illustratively, the specification describes that "[t]he mastering of such an incomplete pit effect can be done, for example, by means of a kind of hollow-cone electron beam or by means of a high resolution writing beam scanned according to the shape of the pit effect, e.g. in a circle, to write the pit effect with the pillar P substantially in the center." The specification further suggests that for such a writing or mastering operation, a writing equipment, e.g. an electron beam mastering equipment, may be provided with a resolution of four times the resolution of the read-out equipment. (See, page 7, lines 8-13.)

Patent
Serial No. 10/509,233
Reply to Final Office Action of June 30, 2006

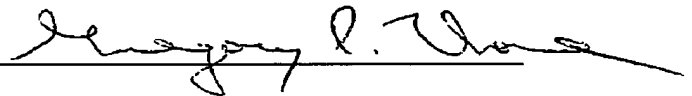
Thus, not only is the present system well enabled, but even illustrative embodiments are provided particularly describing how the present system may be realized, although as is clear from the description, the claims should not be construed to be limited to the illustrative embodiments unless explicitly stated as such in the claims in that a person of ordinary skill in the art would readily appreciate that numerous other embodiments may be readily applied to arrive at the present embodiments required the currently pending claims.

Therefore, Applicants contend that the disclosure as originally submitted more than adequately enables the present system, as for example required by Claims 1-20, to a person skilled in the present art. Accordingly, the Applicants respectfully request that the rejections of Claims 1-20 under 35 U.S.C. §112, first paragraph, alleged for a lack of enablement, be withdrawn.

Patent
Serial No. 10/509,233
Reply to Final Office Action of June 30, 2006

Applicants have made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

By 

Gregory L. Thorne, Reg. 39,398
Attorney for Applicant(s)
August 7, 2006

THORNE & HALAJIAN, LLP
Applied Technology Center
111 West Main Street
Bay Shore, NY 11706
Tel: (631) 665-5139
Fax: (631) 665-5101